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|-------------------------------|-----------------|----------------|
| <b>Notice of Allowability</b> | Application No. | Applicant(s)   |
|                               | 09/380,312      | MINAMIO ET AL. |
|                               | Examiner        | Art Unit       |
|                               | Lourdes Cruz    | 2827           |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to An Amendment filed 8-18-2003.
2.  The allowed claim(s) is/are 1,2,4-11, 13-16, and 18-36.
3.  The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

5.  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - (a)  The translation of the foreign language provisional application has been received.
6.  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8.  CORRECTED DRAWINGS must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No. \_\_\_\_\_.
  - (b)  including changes required by the proposed drawing correction filed 18 August 2003, which has been approved by the Examiner.
  - (c)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.**
9.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- 1  Notice of References Cited (PTO-892)
- 3  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 5  Information Disclosure Statements (PTO-1449), Paper No. 42
- 7  Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 2  Notice of Informal Patent Application (PTO-152)
- 4  Interview Summary (PTO-413), Paper No. \_\_\_\_\_.
- 6  Examiner's Amendment/Comment
- 8  Examiner's Statement of Reasons for Allowance
- 9  Other \_\_\_\_\_.

**DETAILED ACTION**  
**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

***Specification***

Please **substitute title** for "Resin Molded Semiconductor Device on a Lead Frame and Method of Manufacturing the Same"

***Allowable Subject Matter***

The following is an examiner's statement of reasons for allowance: There is prior art regarding encapsulated semiconductor devices on a lead frame, said lead frame comprising leads. See, for example, Morihiro (JP 02201946). Morihiro teaches a resin molded semiconductor device comprising a chip 1 mounted on a die pad portion 2 of a lead frame; wires 3 connecting the terminals to inner lead portions of the lead frame, a sealing resin 8 which seals an outer peripheral region of the chip, said region including a wire region of the upper face of the chip, and a lower region of said die pad portion; and outer lead portions arranged in a bottom face region of said sealing resin, wherein said die pad portion is located higher than the inner lead portions.

However, the Application as amended specifically recites in claims 1,2,4-7,11,13-16,18-20,22,23,25,26,28,29, and 31-36 a resin molded semiconductor device with either

a lead frame located at a position higher than the inner lead portions and/or the specific shape of the inner lead portions. These in combination with all other structures, such as wires, semiconductor chip, resin, outer lead portions; specifically their specific disposition with respect to one another make the above device claims allowable over the prior art of record.

Method claims 8-10,21,24,27, and 30 are allowable for reciting the method of manufacturing the above allowable device.

The prior art of record fails to, either alone or in combination, anticipate the above specific device and/or the method of manufacturing such. Hence the Notice of Allowability found herein.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elle Cruz whose telephone number is 703-306-5691. The examiner can normally be reached on M-F 10-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammand Cuneo can be reached on 703-308-1233. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Elle Cruz

Lourdes Cruz  
Examiner  
Art Unit 2827



Lourdes Cruz  
Examiner  
Art Unit 2827  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY TRANSFER 2000